

P R S P E T S

MNR #50447 (0.5K P.R. 93 • 12 • 17) ISBN 0-7778-2227

Introduction – Northwest Region Science and Technology

Northwest Region Science and Technology (NWR S&T) is an integrated team of dedicated professionals working in Operations Division of the Ontario Ministry of Natural Resources. NWR S&T consists of a Terrestrial Unit, an Aquatics Unit and a Support Unit.

The manager of NWR S&T is located in Timmins and is also the manager of the Northeast Science and Technology Unit (NEST). Members of the Terrestrial Unit are located in Kenora (2) and on the 25th Side Road in Thunder Bay (9) at the Northwest Region Natural Resource Centre. The Support Unit (3) is based at the Natural Resource Centre. Members of the Aquatics Unit are located in Nipigon (2), Thunder Bay (3) and Kenora (5). The Northwest Region Fish and Wildlife Ageing Laboratory located in Dryden with a staff of two, provides service to both the Terrestrial and Aquatics Units.

NWR S&T embraces a set of VALUES to which we aspire when conducting our business. We believe our team is:

novative	responsive to client needs
daptive	objective
ollaborative	efficient
ractical	relevant
(daptive ollaborative

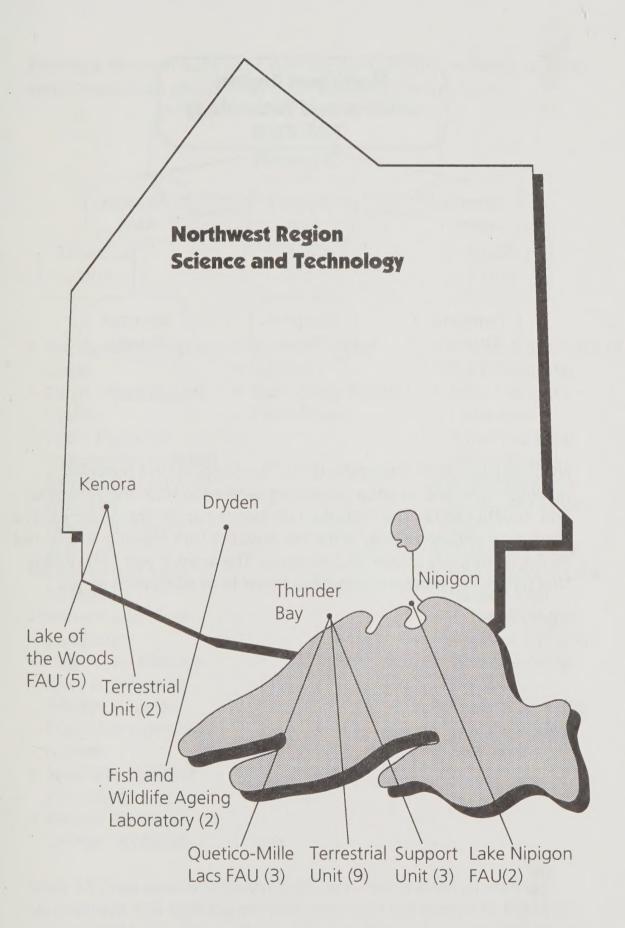
and committed to timely delivery of quality science and resource knowledge to our clients. We believe that natural resources should be managed in a manner consistent with the sustainability of ecosystems.

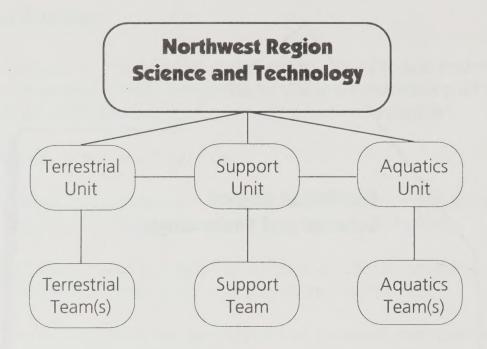
Our Mission

Our mission is: "to develop and provide scientific and technical knowledge that will contribute to the implementation of the best natural resource management practices possible".

Our mission will be achieved by:

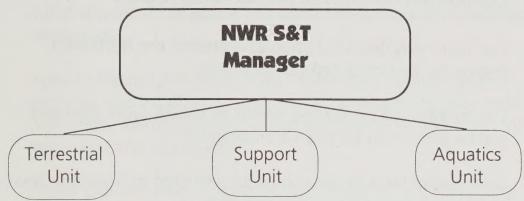
- promoting excellence in the application of science and technology to resource management activities and decision making;
- assisting clients in improving program delivery by providing access to the best, most up-to-date science and technology;
- being involved in the development of standards and methodologies for resource management activities and in innovative applied research activities;
- identifying needs for policy development, research and information;
- evaluating the application of science to resource management;
 and
- selectively monitoring the effects of natural and man made ecosystem disturbances on resources to identify management options.





NWR S&T has three Operating Units. The Support Unit provides administrative and desktop publishing services to both the Terrestrial and Aquatics Units. The Terrestrial Unit works under the guidance of a client advisory committee, while the Aquatics Unit is primarily directed by the provincially driven FAU program. The Science and Technology Unit delivers its program through a network of ecosystem teams.

Sharing a manager with NEST will help facilitate the exchange of ideas and co-operation on common goals between the two Units.



- Terrestrial Unit Team Leader
- Stand Establishment Forester
- Stand Dynamics
 Forester/Fire Ecologist
- Terrestrial Ecosystem Specialist
- Terrestrial Project Biologist
- Growth and Yield Forester
- Growth and Yield Technician
- Vegetation Management Alternatives (VMAP) Forester
- Stand Management
 Forester
- Seed Management Co-ordinator
- Natural Resource Centre Technician

- Financial Officer
- Secretary
- Technology Transfer Co-ordinator
- Unit Biologist, Lake of the Woods FAU
- Senior Fisheries
 Technician
- Data Processing Technician (2)
- A/Unit Biologist, Quetico-Mille Lacs FAU
- Data Entry Clerk
- Unit Biologist, Lake Nipigon FAU
- Project Biologist
- Regional Fish and Wildlife Ageing Biologist
- Regional Fish and Wildlife Ageing Technician

NWR S&T has several positions that are currently filled by staff on secondment and working on other initiatives not related to the Unit's role in the Region. They include, a Project Biologist, a River and Stream Ecosystem Specialist and a Senior Technician (Quetico - Mille Lacs FAU).

Our Scope

Our activities will focus on the Northwest Region.

Our team may be called upon to represent the Northwest Region for Provincial tasks or initiatives.

Deliverables will be defined within an annual work plan and will be accounted for in an annual report.

Developmental activities should be restricted to 5 years or less to ensure timely delivery and relevancy.

Applied research activities will be conducted at a minimum standard consistent with "provincial-level" peer review.

The team is politically neutral, has no specific operational program affiliation, and seeks to provide scientific facts, and unbiased opinions based upon scientific fact. Scientific integrity is paramount.

Although the main function of the Aquatics Unit is to deliver the Provincially mandated assessment program, NWR S&T is primarily client driven and will set its work plan priorities and manage its activities accordingly. Provincially mandated initiatives may be delivered by NWR S&T, if funding is provided and the work is endorsed by our clients.

The following are examples of how NWR S&T provides scientific and technical knowledge that will contribute to Natural Resource management Regionally and Provincially:

Establishment of Standards - provide scientific review and advice in the development of standards for relevant science related management or research standards such as treatment regime definition, survey techniques and procedures, permanent sample plot data standards and minimum data requirements.

Fish, Forestry and Wildlife Guideline Interpretation - contribute knowledge and expertise to Provincial policy and development initiatives; technical advice and guidance to managers; facilitate workshops.

Input to Policies and Procedures - contribute knowledge, expertise and experience to provincial development and implementation; identification of needs and shortcomings; input into legislation and regulation.

Expert Opinion - expert opinion and advice to field managers; expert witness in legal undertakings.

Issues Management - input scientific and technical expertise to assist in problem analysis and development of science-based solutions.

Resource Allocation - input scientific and technical expertise to support scientifically based resource allocation for sustainable management; provide data to support calibration of wood supply analysis, commercial fishing quotas, priorities and allocations based upon local and regional data bases.

Pest Management Strategies and Operations - input scientific and technical expertise to district development of strategies (part of a task force); assessment of treatment effectiveness; development of new technologies and science; pests include budworm, smelt, zebra mussels, ticks, purple loosestrife, etc. that can cross district boundaries.

Data Collection - provide science support for operational data collection methodologies such as cruising, FEC data collection, mensuration data collection, and habitat assessment; provide knowledge to field managers on data capture, sampling design, analysis and presentation.

GIS Support - involved in application of products; calibration of software and procedures to local site region conditions using assessment data (trends and patterns, data and analysis) and identification of potential applications of GIS tools/models to district/client initiatives or problems.

Management Planning Technology Support - input scientific and technical expertise to support integrated management planning.

Environment Reports - analyze data, generate trend through time data for fish community synthesis, status of fish, wildlife and forest resources.

Access to Reference Material - develop reference library collections and facilitate access to fish, wildlife and forests reference material including scientific papers and reports, video tapes and slides.

Experimental Management - submit or evaluate and conduct fisheries experimental management or forestry or wildlife site management projects including management options.

Peer Review - review proposed publications of district, regional and main office staff and professional colleagues.

Networking - support communication links and professional colleagues in government, industry and academia to maintain staff skills.

Provincial Working Groups - participate on provincial working groups, task teams; involved with data syntheses.

Audit - involved with Audit and Evaluation Branch's operational audits where science evaluation of district/regional programs is required.

Science Transfer - general information transfer through workshops, extension program, newsletter, technical notes and reports and professional and technical training.

Our Customers and Clients

The organizations that can benefit from the work done by the Unit are many and varied. They can include OMNR District and Area Teams, comanagement groups, tourism associations, the forest industry, commercial fishermen and everyday resource users. These clients or customers provide input to the Unit through a consultation process. The consultation process is in different stages of development for both the Terrestrial and Aquatics Units.

Terrestrial Unit

A consultation process with our clients is necessary to:

- 1. help set Terrestrial Unit work plan priorities
- 2. ensure relevance
- 3. provide accountability in a client-driven process
- 4. provide feedback on performance

The consultation process consists of 5 steps:

- Step 1: Send out a request for projects / science needs to OMNR
 Districts and FMA holders within NWR. The District and Area
 Teams will consult with stakeholders in their Areas, including
 non-FMA timber companies. Area Teams are also responsible
 for making science related information available to the general
 public. Project / science needs will focus on the strategic needs
 of the Region. These needs will be identified by the Advisory
 Committee and will be reflected in the request for projects to
 the clients.
- Step 2: Program specialists review each prioritized submission which has a possibility for being funded, with appropriate staff from both the Operations and Policy Divisions to ensure that projects are relevant, are not being duplicated and that the problem is properly understood and described.

- Step 3: An Advisory Committee consisting of 1 member from each District and one representative of each FMA holder reviews and prioritizes submissions which had previously been screened for mandate and collated where redundancies occurred. Also involved in this process will be a representative of Site Region Planning and Operations Section. The Advisory Committee will identify strategic science and technology knowledge gaps and focus development projects on these areas.
- Step 4: An Executive Committee consisting of the Regional Director, NWR S&T Manager, 2 District Managers and 2 senior forest industry representatives reviews and ratifies a prioritized work plan and hears a status report on recently achieved targets, ongoing projects and objectives for proposed projects.
- Step 5: The Unit specialists, in consultation with the clients, prepare tactical project plans which, prior to implementation, are reviewed to ensure they are scientifically sound. The projects are then carried out.

All members of the Executive Committee are expected to feed information back to the executive levels of their respective organizations.

To ensure communication with all major stakeholders, OFAH, NOTOA, FON, OFIA, OLMA and Native Forestry Organizations should receive copies of the annual report and annual work plan.

Aquatics Unit

The Aquatics Unit is in the early stages of development within NWR S&T. The Unit has yet to define which clients will be directly represented on its advisory committee and what process will be followed to provide input to the Aquatics Unit.

Staff Profiles

The following is a list of Northwest Region Science and Technology staff, including a short synopsis of their roles and responsibilities.

NWR S&T Manager Al Willcocks

My responsibility in the Northwest Region Science and Technology organization is to be a coach, philosopher and leader for the NWR S&T team. It is also my responsibility to be the link between NWR S&T and some of our key partners, such as NODA, and MNR's other science and technology and research organizations.

NWR S&T and the regional science and technology system is new in MNR. So it is important for us to reach out and let you know we are here, to talk about who we are, and to explain what we do.

This prospectus is an introduction to our unit and our staff. We invite you to read it and keep it as a reference guide to NWR S&T. Please feel free to contact any of our staff if you would like to discuss a specific program or project.

We are committed to accomplishing our mission, and we believe very strongly in our guiding principles, the most important of which is a dedication to the development of client steering committees. It is through our clients that we maintain our links with and our focus on the realities of managing natural resources in Northwestern Ontario.

Terrestrial Unit

Terrestrial Unit Team Leader Ron Waito

Role:

To provide leadership to the staff in the Unit at both the group and individual level with respect to the planning, coordination, implementation, acquisition, development and transfer of science and technology and information to resource managers and stakeholder groups in the Northwest Region.

Ron has worked in the resource management field in the region for 19 years as a Unit Forester, Forest Management Supervisor, Regional Silviculturist, acting Regional Forester and Supervisor of Stock and Seed Production for the region. Ron has participated in various regional level special projects during this time and spent approximately 2 years with the Timber EA project, primarily in the area of silviculture and planning.

Stand Establishment Forester Brian Polhill

Role:

Acquisition, development and transfer of the best science and technology related to stand establishment and renewal activities. This includes all activities from pre-harvest silvicultural prescriptions, through early growth and development, to free to grow.

Brian has a background in nursery stock production, morphology and handling.

Stand Dynamics Forester/Fire Ecologist Bill Towill

Role:

Acquisition, development and transfer of the best science and technology related to the study and understanding of natural and man-made forest ecosystem structure, productivity, function and dynamics and its integration into regional site-specific silviculture strategies.

Bill has a strong background in FEC/ELC training and interpretation.

Terrestrial Ecosystem Specialist Gerry Racey

Role:

Acquisition, development and transfer of the best science and integrated management technology relating to the management of biodiversity, landscapes and multi-resource values within a regional context. Gerry is responsible for the Ecological Land Classification program in the Northwest Region.

Gerry has a background in wildlife ecology, nursery stock production and handling, applied statistics and forest ecology.

Terrestrial Project Biologist Bill Dalton

Role:

To assist Terrestrial Unit specialists with the conduct of literature searches, field trials, report writing, technology transfer consultation and field visits.

Bill has particular expertise in the habitat supply modelling field.

Growth and Yield Forester Jim Mackenzie

Role:

To promote the long-term health and sustainable management of forest ecosystems by co-ordinating the development, acquisition and transfer of the best information and knowledge related to forest growth and yield. Jim is responsible to provide Regional program leadership and client services in forest growth and measurement and forest modelling and productivity.

Jim is strong in the application of growth and yield information for wood supply modelling and crop planning.

Growth and Yield Technician Mark Roddick

Role:

To assist the Growth and Yield Forester in all aspects of the Growth and Yield program. Mark is responsible for all technical aspects of the program including training and technical development.

Mark has a background in silvicultural operations.

Vegetation Management Alternatives (VMAP) Forester Chris Hollstedt

Role:

To provide leadership for the acquisition, development and transfer of the best biological science and technology available related to forest vegetation management in support of the long term health of forest ecosystems and the management of natural resources. Chris is responsible for the Vegetation Management Alternatives Program (VMAP) in the Northwest Region.

Chris has extensive experience in operational silviculture and vegetation management in industry and government.

Stand Management Forester Colin Bowling

Role:

Acquisition, development and transfer of the best science and technology relating to the management of forest stands, including silviculture systems and harvesting techniques.

Colin works out of the Kenora office and is an expert in managed stand growth modelling and intermediate stand management techniques.

Seed Management Co-ordinator – Northwest Region Bob White

Role:

Working with the Ontario Tree Improvement Board, helps promote, with aid from industry and government staff, seed management, intensive tree improvement and other genetic resource management programs.

Bob works out of the Kenora office. He has worked as a Management Forester, Forest Management Supervisor and Regional Silviculturist.

Natural Resource Centre Technician Jocelyn Longe

Role:

Jocelyn assists in the field layout, implementation, data collection and maintenance of the various demonstration trials at the Centre and assists with the ongoing maintenance of Centre property. Jocelyn also assists in the field data collection program that is associated with the Science Unit's developmental work.

Jocelyn worked in silvicultural operations in Thunder Bay District before coming to NWR S&T.

Aquatics Unit

Lake of the Woods Fisheries Assessment Unit

Unit Biologist, Lake of the Woods FAU Tom Mosindy

Role:

Plans, organizes and implements the Fisheries Assessment Unit (FAU) program for Lake of the Woods. Transfers fisheries science and management information locally and provincially.

Tom's background is in fisheries science, population ecology and aquatic biology. He has worked in fisheries research and assessment at various locations throughout Northern Ontario.

Senior Fisheries Technician Chris Bell

Role:

Senior Assistant to the Lake of the Woods FAU Biologist. Plans and organizes long and short term technical operations by developing and preparing long range operational plans.

Chris has considerable knowledge of Lake of the Woods and area fisheries having worked for two decades as a fishing and hunting guide. He worked as Park Superintendent of Polar Bear Provincial Park while working in Moosonee District and acquired a strong operational background through this program.

Data Processing Technician Pat Pernsky

Role:

Enters field records from LWFAU projects into provincial fisheries data analysis programs and checks both input/output for accuracy. Maintains local FAU databases. Assists FAU biologist in transferring data summaries and information to clients.

Pat's background is in education, both as a teacher and an MNR educational program leader. She has also handled data entry/support for provincial wildlife data bases including the Big Game, HMDBS, Moose Aerial and Hunter Exam programs.

Data Processing Technician Carol Clark

Role:

Enters field records from LWFAU projects into provincial fisheries data analysis programs and checks both input/output for accuracy. Data entry and audit of commercial fish catch records for the Lake of the Woods fishery. Assists LWFAU biologist in transferring data and information to clients.

Carol's background is in commercial fish catch audit and harvest control. She has also been involved in the development of data entry programs for Compliance Operations Branch.

Quetico - Mille Lacs Fisheries Assessment Unit

A/Unit Biologist, Quetico - Mille Lacs FAU Mike Fruetel

Role:

Design and implementation of the FAU's field programs to meet FAU Core Data Standards, analysis and interpretation of long term data sets, and reporting of results.

Mike has been working with the QMLFAU since 1988 and has a wide variety of field experience and analytical skills in fisheries assessment. His education background includes a BSc in wildlife biology (Guelph) and MSc in biology (Lakehead).

Data Entry Clerk Brenda Culligan

Role:

Brenda is responsible for data entry and management, as well as the IFAS system, which includes requisitioning and journal entry, and budgeting. She also provides services as a Field Technician and with general office operations.

Brenda is a Legal Secretary graduate from Centennial College and a Forestry Technician graduate from Lakehead University. She spent two years as a Radio Operator/Fire Clerk for Pickle Lake Fire Operations and has been with the Quetico-Mille Lacs FAU for six years.

Lake Nipigon Fisheries Assessment Unit

Unit Biologist, Lake Nipigon FAU Rick Salmon

Role:

Plans, organizes and implements the Assessment program on Lake Nipigon. Transfers fisheries science and management information locally and provincially.

Rick has been with LNFAU since 1989 and has worked in the field of fisheries and wildlife management since 1980. He has a Bachelor of Science degree from the University of Guelph.

Project Biologist Albertine Van Ogtrop

Role:

Develop data collection and management standards. Analysis and interpretation of LNFAU data sets and reporting of results.

Albertine has been with the LNFAU since 1991 and has a wide variety of field experience and analytical skills in fisheries assessment. She has a Bachelor of Science degree from the University of Guelph and a Bachelor of Education degree from Western University.

Regional Fish and Wildlife Ageing Biologist Susan Mann

Role:

To develop and transfer the best ageing service, science and technology available to the district and fisheries assessment unit biologists for management of fish and wildlife populations.

Susan has a background in wildlife biology from the University of Guelph. She has been assessing ages of fisheries and wildlife structures for the past nine years in the Northwest Region.

Regional Fish and Wildlife Ageing Technician Craig Wolanin

Role: To complete laboratory preparation and ageing assessments for Northwest Region.

Craig graduated as a Fish and Wildlife Technician from Sir Sandford Fleming College. He has nine years field experience with various fish and wildlife projects. He has spent the last five years learning and improving techniques in his above mentioned role.

Support Unit

Financial Officer Nancy Knudsen

Role:

To provide specialized administrative, financial and support services to Northwest Region Science and Technology. Nancy is responsible for work program planning, budget preparation, monitoring and trouble shooting for both Northwest Region Science and Technology and Northeast Science and Technology.

Secretary Karen Caruk

Role:

To provide administrative/clerical support for Northwest Region Science and Technology. Karen is responsible for managing the day to day operations of the Unit office at the 25th Side Road, Thunder Bay, location.

Karen has a good background in both clerical field and administration through several years of experience with the Ministry of Natural Resources.

Technology Transfer Co-ordinator Dale Smyk

Role:

Planning, co-ordination and delivery of a field-based technology transfer and extension program to ensure client and public awareness of programs and products of NWR S&T.

Dale has a background in forest fire management, planning and communications.

Contract Staff

The foregoing staff profiles introduce the Unit's regular staff only. We would like to acknowledge the valuable contribution that is made by our contract staff in helping to achieve our mission. The Unit employs a significant number of contract staff, ranging from administrative support, to field crews, to long term staff who have individual responsibilities for components of the Unit's annual work program. Without their dedicated efforts, the rest of the Unit's staff would not be able to deliver the products and services that we strive to provide to you, our clients.

Remember that the needs of the many outweigh the needs of the few!

Communicate! Communicate! Communicate!

